

CLAIMS

What is claimed is:

1. A key-based advanced navigation system comprising:
 - a key-based input component which maps to one or more segments of content displayed on a portable device screen, the key-based input component comprising any number of numeric keys and non-numeric keys;
 - a navigation component that facilitates navigating through the content in part according to the input received from the input component; and
 - a mapping component that smoothly transitions a current view to a new or previous view and orients the content and/or the view thereof within the portable device screen based in part on data received from the input component and the navigation component.
2. The system of claim 1, further comprising a segmentation component that optimizes division of the content displayed on the device screen into one or more segments.
3. The system of claim 2, the segmentation component optimizes the division of the content based on at least one of the content, author preferences, user preferences, complexity of content, and density of content with respect to the display screen.
4. The system of claim 2, the segmentation component divides the content displayed on the device screen into up to nine segments, each segment corresponding to a number key on the key-based input component.
5. The system of claim 2, the segmentation component superimposes a visual cue onto each respective segment of content which indicates how the current view is segmented into child views.

6. The system of claim 5, the visual cue comprises a numeric cue corresponding to one or more keys on the key-based input component.
7. The system of claim 5, the visual cue is semi-transparent to mitigate obstructing a view of the underlying content.
8. The system of claim 2, the one or more segments are any one of overlapping and equal in dimension, overlapping and not equal in dimension, non-overlapping and equal in dimension, and/or non-overlapping and non-equal in dimension.
9. The system of claim 1, the key-based input component further comprises key-based touch screen sensors overlaid on the display screen.
10. The system of claim 1, the key-based input component comprises number keys of a keypad.
11. The system of claim 10, a first number key is tapped to zoom in at least a first zoom level to the corresponding segment of content.
12. The system of claim 11, a second number key is pressed and held for a period of time to temporarily display a different segment of content where upon releasing the second number key snaps back to a previous segment of content to provide at least one of context and perspective with respect to the previous segment of content.
13. The system of claim 11, when at the first zoom level, a second number key is tapped to shift to an appropriate sibling segment at the same zoom level.
14. The system of claim 1, any number of non-numeric keys comprises a dedicated toggle children button such that when tapped, a current zoomed in child

view is divided up into more than one segments or child views and the current zoomed in child view is now redefined as a parent view for these newly available child views.

15. The system of claim 1, the navigation component facilitates glancing at neighboring or nearby content by temporarily transitioning a current view to a new view and then back to the current view to gain perspective or context of the content in the current view.

16. The system of claim 1, the content comprises multiple levels of detail such that the navigation component gracefully moves through the various levels of content by way of at least one of following: zooming in, zooming out, shifting views at any zoom level and while maintaining a current zoom level, shifting a current view to an original focus of interest, and shifting a current view to a previous view.

17. The system of claim 1, the input component comprises one or more soft keys, wherein the functionality of each soft key varies based on any one of underlying content and an application associated with such content.

18. The system of claim 1, further comprising a tracking component that generates a relatively very small and schematic overview map which is superimposed in outline form in a corner of the display screen when a child view is displayed.

19. The system of claim 18, the tracking component further generates a smaller rectangle within the overview map to indicate a relative size and location of the child view within a context of the child view's parent view.

20. The system of claim 19, a subtle but noticeable gradation is applied around a perimeter of the parent's view to provide further perspective regarding to the child view with respect to the parent's view.
21. The system of claim 1, the content comprises a real-time traffic monitoring application comprising color-coded roadways and highways to indicate traffic status.
22. The system of claim 21, the content further comprising user-defined routes.
23. The system of claim 1, the content comprises a web-based application, whereby one or more defined areas of the display are not segmented for more detailed viewing.
24. The system of claim 23, the one or more defined areas comprises advertisement panes.
25. A method that facilitates key-based navigation on small portable devices comprising:
 - dividing content displayed on a device screen into at least two segments;
 - mapping a key-based input component to the at least two segments, the key-based input component comprising at least two keys;
 - receiving user-based input regarding at least one segment of the content displayed on a device screen; and
 - orienting a view of any one segment of the content based in part on the user-based input.
26. The method of claim 25, the at least two segments comprises a first segment and a second segment.

27. The method of claim 25, the at least two segments are individually child views of a parent view, the parent view comprises the at least two segments of content.
28. The method of claim 27, further comprising dividing the child view of content into at least two segments such that the child view becomes a parent view, each segment corresponding to any one key on the key-based input component.
29. The method of claim 25, dividing the content into at least two segments comprises dividing the content displayed on the device screen into up to nine segments, each segment corresponding to a number key on the key-based input component.
30. The method of claim 25, dividing the content into at least two segments comprises optimizing division of the content based at least in part upon at least one of the following: content, author preferences, user preferences, complexity of content, and density of content with respect to the display screen.
31. The method of claim 25, further comprising navigating through the content or at least one segment thereof by pressing or tapping a key mapped to the respective segment desired to view.
32. The method of claim 25, orienting the view of the content comprises at least one of the following:
 - zooming in to one segment;
 - zooming out to an overview of content;
 - shifting from a first view of a first segment to a second view of a first segment;
 - shifting from a first segment to a second segment, the shifting comprises: shifting from a current to a new view, shifting from a current view to a previous view, shifting from a current view to the overview of the content.

33. The method of claim 32, the overview of the content comprises displaying substantially all segments of the content on the device screen.
34. The method of claim 32, shifting from a first segment to a second segment is temporary when a key corresponding to the second view is pressed and held for a period of time and then released.
35. The method of claim 32, the first view is at a first zoom level and the second view is at a second zoom level.
36. The method of claim 32, further comprising maintaining a first segment zoom level when shifting from the first segment to the second segment.
37. The method of claim 25, the at least two keys comprising numeric keys and non-numeric keys.
38. The method of claim 36, the numeric keys mapped to content segments such that a first numeric key maps to a first content segment.
39. The method of claim 36, the non-numeric keys mapped to a functionality that varies according to one of the content or application supporting the content.
40. The method of claim 25, further comprising superimposing semi-transparent visual cues on each of the at least two segments to identify which key corresponds to which segment of the content.
41. A data packet adapted to be transmitted between two or more computer processes facilitating providing suggestions to an online user, the data packet comprising:
 - information associated with dividing content displayed on a device screen

into at least two segments; mapping a key-based input component to the at least two segments, the key-based input component comprising at least two keys; receiving user-based input regarding at least one segment of the content displayed on a device screen; and orienting a view of any one segment of the content based in part on the user-based input.

42. A computer-readable medium having stored thereon the following computer executable components of claim 1.

43. A system that facilitates key-based navigation on small portable devices comprising:

means for dividing content displayed on a device screen into at least two segments;

means for mapping a key-based input component to the at least two segments, the key-based input component comprising at least two keys;

means for receiving user-based input regarding at least one segment of the content displayed on a device screen; and

means for orienting a view of any one segment of the content based in part on the user-based input.

44. The system of claim 43, the at least two segments are individually child views of a parent view, the parent view comprises the at least two segments of content.

45. The system of claim 44, further comprising means for dividing the child views of content into at least two segments such that the child view becomes a parent view, each segment corresponding to any one key on the key-based input component.